

Rpt. 4b.

REPORT ON OIL ENGINE MACHINERY.

No. 0426

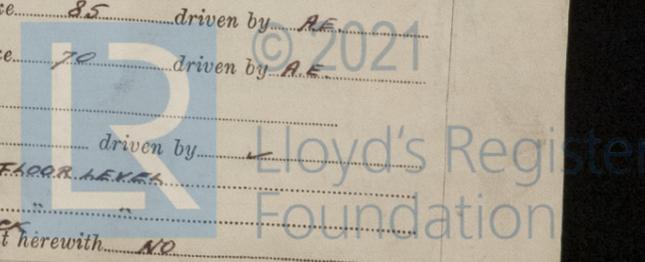
Date of writing Report 24.6.53 19... When handed in at Local Office... 19... Port of GRONINGEN
 Received at London Office... 14 JUL 1953
 No. in Survey held at WATERHUIZEN Date, First Survey 4.2.53 Last Survey 20.6.1953
 Reg. Book... Number of Visits 18
 Single on the Twin Triple Quadruple Screw vessel M.V. "BIDURI" Tons Gross 6,673.39 Net 4,330.4
 Built at WATERHUIZEN By whom built N.V. SCHM. WATERHUIZEN "PATJE" Yard No. 216 When built 1953
 Engines made at AMSTERDAM By whom made N.V. "WERKSPOR" Engine No. 1473 When made 1953
 Donkey Boilers made at... By whom made... Boiler No. ✓ When made ✓
 Brake Horse Power 500 Owners Republik Indonesia Port belonging to DJAKARTA
 M.N. Power as per Rule 100 Is Refrigerating Machinery fitted for cargo purposes NO Is Electric Light fitted YES
 Trade for which vessel is intended OCEAN TRADE

OIL ENGINES, &c. —Type of Engines

[DIMENSIONS IN MM]

Maximum pressure in cylinders... 2 or 4 stroke cycle... Single or double acting...
 Mean Indicated Pressure... Ahead Firing Order in Cylinders... No. of cylinders... No. of cranks...
 from inner edge to inner edge... Is there a bearing between each crank... Span of bearings, adjacent to the crank, measured...
 Flywheel dia... Weight... Moment of inertia of flywheel (lbs. in² or Kg. cm.²)... Revolutions per minute...
 Crank Shaft, (Solid forged Semi built All built dia. of journals as per Rule... as fitted... Crank pin dia... Crank webs Mid. length breadth... Mid. length thickness... Kind of fuel used...
 Flywheel Shaft, diameter as per Rule... as fitted... Intermediate Shafts, diameter as per Rule... as fitted... Thrust Shaft, diameter at collars as fitted... as per Rule...
 Tube Shaft, diameter as per Rule... as fitted... Screw Shaft, diameter as per Rule... as fitted... Is the (tube screw) shaft fitted with a continuous liner...
 Bronze Liners, thickness in way of bushes as per Rule... as fitted... Thickness between bushes as per Rule... as fitted... Is the after end of the liner made watertight in the propeller boss...
 If the liner does not fit tightly at the part between the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive... If two liners are fitted, is the shaft lapped or protected between the liners... Is an approved Oil Gland or other appliance fitted at the after end of tube shaft... If so, state type VAN DAM
 Propeller, dia. 1840 Pitch 1110 No. of blades 4 Material BRONZE whether moveable SOLID Total developed surface 46.27 sq. feet
 Moment of inertia of propeller (lbs. in² or Kg. cm.²) 259 Kind of damper, if fitted...
 Method of reversing Engines... Is a governor or other arrangement fitted to prevent racing of the engine when declutched... Means of lubrication... Thickness of cylinder liners... Are the cylinders fitted with safety valves... Are the exhaust pipes and silencers water cooled or lagged with non-conducting material... If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine... Cooling Water Pumps, No. 3 Is the sea suction provided with an efficient strainer which can be cleared within the vessel...
 Bilge Pumps worked from the Main Engines, No. 2 Diameter... 2.0 35/64 Stroke... 1.0 1/2 Can one be overhauled while the other is at work...
 Pumps connected to the Main Bilge Line (No. and size 2 @ 35/64 + 1 EMERGENCY BILGE PUMP @ 35/64 How driven AE ELECT.
 Is the cooling water led to the bilges... If so, state what special arrangements are made to deal with this water in addition to the ordinary bilge pumping arrangements...
 Ballast Pumps, No. and size 2 @ 35/64 Power Driven Lubricating Oil Pumps, including spare pump, No. and size 1 @ 4 1/4 1 @ 6 1/4
 Are two independent means arranged for circulating water through the Oil Cooler... Suctions, connected to both main bilge pumps and auxiliary bilge pumps, No. and size:—In machinery spaces 1 @ 3" In pump room...
 Independent Power Pump Direct Suctions to the engine room bilges, No. and size 2 @ 3"
 Are all the bilge suction pipes in holds and tunnel well fitted with strum-boxes... Are the bilge suction in the machinery spaces led from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges...
 Are all Sea Connections fitted direct on the skin of the Ship EN. CHSTS Are they fitted with valves or cocks VALVES Are they fixed sufficiently high on the ship's side to be seen without lifting the platform plates... Are the overboard discharges above or below the deep water line ABOVE Are they each fitted with a discharge valve always accessible on the plating of the vessel... Are the blow off cocks fitted with a spigot and brass covering plate...
 That pipes pass through the bunkers... How are they protected...
 That pipes pass through the deep tanks BALLAST LINES TO FOREPEAK & N° 1, 2, 3 DE. TANKS BILGE LINES TO FORWARD HOLD Have they been tested as per Rule...
 Are all pipes, cocks, valves and pumps in connection with the machinery and all boiler mountings accessible at all times...
 Is the arrangement of valves and their connections such as to prevent the possibility of water passing from the sea or from water tanks into the cargo or machinery spaces, or from one compartment to another... Is the shaft tunnel watertight MACH. DEPT. Is it fitted with a watertight door... worked from...
 On a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork...
 Main Air Compressors, No. 1 No. of stages... 2 diameters... 9.5/11.0 stroke... 8.5 driven by... AE
 Auxiliary Air Compressors, No. 1 No. of stages... 2 diameters... 7.5/8.5 stroke... 7.0 driven by... AE
 Small Auxiliary Air Compressors, No. 1 No. of stages... 2 diameters... 7.5/8.5 stroke... 7.0 driven by... AE
 What provision is made for first charging the air receivers... HAND STARTED AND ENGINES
 Scavenging Air Pumps, No. 1 diameter... 13.0 4/3 stroke... 13.0 4/3 driven by... STAD. ER. TAQR. LEVEL
 Auxiliary Engines crank shafts, diameter as per Rule... 13.0 4/3 stroke... 13.0 4/3 driven by... STAD. ER. TAQR. LEVEL
 Have the auxiliary engines been constructed under special survey... YES, AMS. CERT. DATED 26.2.53 Is a report sent herewith... NO

30.7.53



AIR RECEIVERS:—Have they been made under survey YES ✓ State No. of report or certificate ✓

Is each receiver, which can be isolated, fitted with a safety valve as per Rule YES ✓

Can the internal surfaces of the receivers be examined and cleaned YES ✓ Is a drain fitted at the lowest part of each receiver YES ✓

Injection Air Receivers, No. ✓ Cubic capacity of each ✓ Internal diameter ✓ thickness ✓

Seamless, welded or riveted longitudinal joint ✓ Material ✓ Range of tensile strength ✓ Working pressure ✓
by Rules ✓
Actual ✓

Starting Air Receivers, No. 2 ✓ Total cubic capacity ✓ Internal diameter ✓ thickness ✓

Seamless, welded or riveted longitudinal joint ✓ Material ✓ Range of tensile strength ✓ Working pressure ✓
by Rules ✓
Actual ✓

IS A DONKEY BOILER FITTED NO ✓ If so, is a report now forwarded ✓

Is the donkey boiler intended to be used for domestic purposes only ✓

PLANS. Are approved plans forwarded herewith for shafting ✓ Receivers ✓ Separate fuel tanks 7/4/53
(If not, state date of approval)

Donkey boilers ✓ General pumping arrangements 22-1-53 Pumping arrangements in machinery space 11-2-53

Oil fuel burning arrangements 17-2-53

Have Torsional Vibration characteristics been approved YES ✓ Date of approval ✓

SPARE GEAR.

Has the spare gear required by the Rules been supplied YES ✓

State the principal additional spare gear supplied ✓

The foregoing is a correct description, and the particulars of the installation as fitted are as approved for torsional vibration characteristics Manufacturer. N.V. Motorfabriekplant "WELGELEGEN" Hoogezand

Dates of Survey while building: During progress of work in shops - 11 weeks See Aldam Rpt. 18713
During erection on board vessel - 1953 Feb 4-10-28; March 9-12-20 25-31; April 8-9-21 22-28; May 5; June 4-10-16-20
Total No. of visits 29

Dates of examination of principal parts—Cylinders ✓ Covers ✓ Pistons ✓ Rods ✓ Connecting rods ✓

Crank shaft ✓ Flywheel shaft ✓ Thrust shaft ✓ Intermediate shafts ✓ Tube shaft ✓

Screw shaft ✓ Propeller ✓ Stern tube 10-12-52 Engine seatings 9-4-53 Engine holding down bolts 9-4-53

Completion of fitting sea connections 22-2-53 Completion of pumping arrangements 15-6-53 Engines tried under working conditions 20-6-53

Crank shaft, material ✓ Identification mark ✓ Flywheel shaft, material ✓ Identification mark ✓

Thrust shaft, material ✓ Identification mark ✓ Intermediate shafts, material ✓ Identification marks ✓

Tube shaft, material ✓ Identification mark ✓ Screw shaft, material ✓ Identification mark ✓

Identification marks on air receivers ✓

Welded receivers, state Makers' Name ✓

Is the flash point of the oil to be used over 150°F YES ✓

Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with YES ✓

Description of fire extinguishing apparatus fitted 3 FIREFOAMS @ 9 LTRS., 1 @ 45 LTRS., 2 E.P. HOSE CONNECTIONS.

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo NO ✓ If so, have the requirements of the Rules been complied with ✓

If the notation for ice strengthening is desired, state whether the requirements in this respect have been complied with ✓

Is this machinery duplicate of a previous case YES ✓ If so, state name of vessel BARKAN

General Remarks (State quality of workmanship, opinions as to class, Speed restrictions, &c.)

This engine and auxiliaries have been constructed and fitted under special survey in accordance with the approved plans, Society's Rules and Secretary's letter. The workmanship was found good. The machinery has been tested under full working conditions on a trial trip and found working satisfactorily. In my opinion the machinery of this vessel merits the approval of the Committee and be recorded in the Society's Register Book #1 LMC 6-53 - OIL ENGINE - O.G.

The amount of Entry Fee ... £ 220.- }
Special ... £ : } When applied for 24-6-1953
Donkey Boiler Fee... £ : } When received 19
Travelling Expenses (if any) £ 9.0 }

[Signature]
Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute FRIDAY 14 AUG 1953

Assigned + LMC 6, 53 Oil Eng.
OG

